Contents

VOLUME 44, NUMBER 1, JANUARY 2005

Society News: Tyge Christensen Prize 2004 1–3

Addendum 3

Luz Elena Mateo-Cid, A. Catalina Mendoza-González, Brigitte Gavio and Suzanne Fredericq. *Grateloupia huertana* sp. nov. (Halymeniaceae, Rhodophyta), a peculiar new prostrate species from tropical Pacific Mexico 4–16

Paul B. Hamilton, Linda M. Ley, Stuart Dean and Frances R. Pick. The occurrence of the cyanobacterium *Cylindrospermopsis raciborskii* in Constance Lake: an exotic cyanoprokaryote new to Canada 17–25

Kiyotaka Takishita, Ken-Ichiro Ishida, Masaharu Ishikura and Tadashi Maruyama. Phylogeny of the *psbC* gene, coding a photosystem II component CP43, suggests separate origins for the peridinin- and fucoxanthin derivative–containing plastids of dinoflagellates 26–34

Marvin W. Fawley, Karen P. Fawley and Heather A. Owen. Diversity and ecology of small coccoid green algae from Lake Itasca, Minnesota, USA, including *Meyerella planktonica*, gen. et sp. nov. 35–48

Carlos Ruiz Sebastián, Stacey M. Etheridge, Peter A. Cook, Colleen O'Ryan and Grant C. Pitcher. Phylogenetic analysis of toxic *Alexandrium* (Dinophyceae) isolates from South Africa: implications for the global phylogeography of the *Alexandrium tamarense* species complex 49–60

Elena Varela-Álvarez, Dagmar B. Stengel, Fabio Rindi and Michael D. Guiry. Alternation of nuclear phases and chromosome numbers in *Porphyra linearis* (Bangiales, Rhodophyta) from western Ireland and Maine, USA 61–65

Thierry Givernaud, Nouzha Sqali, Olivier Barbaroux, Abdellatif Orbi, Yussef Semmaoui, Nor Eddine Rezzoum, Aziza Mouradi and Raymond Kaas. Mapping and biomass estimation for a harvested population of *Gelidium sesquipedale* (Rhodophyta, Gelidiales) along the Atlantic coast of Morocco 66–71

Craig W. Schneider and Christopher E. Lane. Notes on the marine algae of the Bermudas. 7. Additions to the flora including *Chondracanthus saundersii* sp. nov. (Rhodophyta, Gigartinaceae) based on *rbc*L sequence analysis 72–83

Britta Schaffelke, Marnie L. Campbell And Chad L. Hewitt. Reproductive phenology of the introduced kelp *Undaria pinnatifida* (Phaeophyceae, Laminariales) in Tasmania, Australia 84–94

Gudrun Kräbs and Christian Wiencke. Photosynthesis, photosynthetic pigments and mycosporine-like amino acids after exposure of the marine red alga *Chondrus crispus* (Gigartinales, Rhodophyta) to different light qualities 95–102

Ga Youn Cho, Sung Min Boo, Wendy Nelson and Margaret N. Clayton. Genealogical partitioning and phylogeography of *Colpomenia peregrina* (Scytosiphonaceae, Phaeophyceae), based on plastid *rbc*L and nuclear ribosomal DNA internal transcribed spacer sequences 103–111

António J. Calado and Øjvind Moestrup. On the freshwater dinoflagellates presently included in the genus *Amphidinium*, with a description of *Prosoaulax* gen. nov. 112–119

Jan Rueness. Life history and molecular sequences of *Gracilaria vermiculophylla* (Gracilariales, Rhodophyta), a new introduction to European waters 120–128

Andrea V. Sussmann, Ricardo Scrosati and Robert E. DeWreede. Seasonal synchrony of a green algal endophyte, *Acrosiphonia* (Codiolales), with its red algal hosts, *Mastocarpus* and *Mazzaella* (Gigartinales) (Research Note) 129–132

VOLUME 44, NUMBER 2, MARCH 2005

In Memoriam: Kathleen Margaret Cole 133–138

Wendy A. Nelson, Tracy J. Farr and Judy E.S. Broom. *Dione* and *Minerva*, two new genera from New Zealand circumscribed for basal taxa in the Bangiales (Rhodophyta) 139–145

Kirsten M. Müller, Jamie J. Cannone and Robert G. Sheath. A molecular phylogenetic analysis of the Bangiales (Rhodophyta) and description of a new genus and species, *Pseudobangia kaycoleia* 146–155

Curt M. Pueschel, Bret L. Judson and Susse Wegeberg. Decalcification during epithallial cell turnover in *Jania adhaerens* (Corrinales, Rhodophyta) 156–162

Wayne B. Chiasson, Nicholas J. Sabo and Morgan L. Vis. Affinities of freshwater putative chantransia stages (Rhodophyta) from molecular and morphological data 163–168

Hiroshi Kawai, Hideaki Sasaki, Shunsuke Maeba and Eric C. Henry. Morphology and molecular phylogeny of *Phaeostrophion irregulare* (Phaeophyceae) with a proposal for Phaestrophiaceae *fam. nov.*, and a review of Ishigeaceae 169–182

Louis A. Hanic. Taxonomy, gamete morphology and mating types of *Urospora* (Ulotrichales, Chlorophyta) in North America 183–193

Sandra C. Lindstrom and Louis A. Hanic. The phylogeny of North American Urospora (Ulotrichales, Chlorophyta) based on sequence analysis of nuclear ribosomal genes, introns and spacers 194–201

Nicole F. Norcom, William J. Woelkerling and Seamus A. Ward. Epiphytic nongeniculate corralines found on *Laurencia filiformis* f. *heteroclada* (Rhodomelaceae, Ceramiales) 202–211

Daniela Milstein and Mariana Cabral de Oliveira. Molecular phylogeny of Bangiales (Rhodophyta) based on small subunit rDNA sequencing: emphasis on Brazilian *Porphyra* species 212–221

Noemi Sanchez and Conxi Rodriguez-Prieto. Vegetative and reproductive morphology of the type species of *Gloiocladia, G. furcata* (Faucheaceae, Rhodophyta). 222–233

Erratum for Phycologia 43 234–237

Application for IPS Membership 238

Invitation to Become a Member of IPS 239

Application for Feldmann Fund 240

VOLUME 44, NUMBER 3, MAY 2005

Margareth Copertino, Sean D. Connell and Anthony Cheshire. The prevalence and production of turf-forming algae on a temperate subtidal coast 241–248

Mark Hünken, Ulf Karsten and Christian Wiencke. Determination of the adenylate energy charge (AEC) as a tool to determine the physiological status of macroalgal tissues after UV exposure 249–253

Daniel E. Wujek and Rufus H. Thompson. Endophytic unicellular chlorophytes: a review of *Chlorochytrium* and *Scotinosphaera* 254–260

Pavel Škaloud, Jiří Neustupa, Barbora Radochová and Lucie Kubínová. Confocal microscopy of chloroplast morphology and ontogeny in three strains of *Dictyochloropsis* (Trebouxiophyceae, Chlorophyta) 261–269

Fabio Rindi, Alison R. Sherwood and Michael D. Guiry. Taxonomy and distribution of *Trentepohlia* and *Printzina* (Trentepohliales, Chlorophyta) in the Hawaiian Islands 270–284

Gertrud Cronberg. The life cycle of *Gonyostomum semen* (Raphidophyceae) 285–293

Itsuki Suto. Observations on the fossil resting spore morphogenus *Peripteropsis* gen. nov. of the marine diatom genus *Chaetoceros* (Bacillariophyceae) in the Norwegian Sea 294–304

Gerald T. Kraft and Alan J.K. Millar. *Struvea thoracica* sp. nov. (Cladophorophyceae), a new deep-water chlorophyte from the Great Barrier Reef and New Caledonia. 305–311

Daniel Robledo and Yoland Freile-Pelegrín. Seasonal variation in photosynthesis and biochemical composition of *Caulerpa* spp. (Bryopsidales, Chlorophyta) from the Gulf of Mexico 312–319

Daniel Spitale, Massimiliano Tardio and Marco Cantonati. Competition between a planktonic diatom and a dinoflagellate during enclosure experiments in a mountain lake 320–327

David L. Ballatine and Hector Ruiz. Two *Peyssonnelia* species (Peyssonneliaceae, Rhodophyta) from Puerto Rico including *Peyssonnelia flavescens* sp. nov. 328–334

David G. Mann and Victor A. Chepurnov. Auxosporulation, mating system, and reproductive isolation in *Neidium* (Bacillariophyta) 335–350

International Phycologia Society Application for Membership 351

An invitation to Become a Member of the International Phycological Society 352

VOLUME 44, NUMBER 4, JULY 2005

Morten Skage, Tove M. Gabrielsen and Jan Rueness. A molecular approach to investigate the phylogenetic basis of three widely used species groups in the red algal genus *Ceramium* (Ceriamales, Rhodophyta) . . 353–360

K.-Y. Kim, M. Yoshida and C.-H. Kim. Molecular phylogeny of three hitherto unreported *Alexandrium* species: *Alexandrium hiranoi, Alexandrium leei* and *Alexandrium satoanum* (Gonyaulacales, Dinophyceae) inferred from the 18S and 26S rDNA sequence data 361–368

Takeshi Nakayama, Masaki Yoshida, Mary-Hélène Noël, Masanobu Kawachi and Isao Inouye. Ultrastructure and phylogenetic position of *Chrysoculter rhomboideus* gen. et sp. nov. (Prymnesiophyceae), a new flagellate haptophyte from Japanese coastal waters 369–383

Giuseppe C. Zuccarello and Gijsbert M. Lokhorst. Molecular phylogeny of the genus *Tribonema* (Xanthophyceae) using *rbc*L gene sequence data: monophyly of morphologically simple algal species 384–392

Rodney M. Forster and Vèronique Martin-Jèzèquel. Photophysiological variability of microphytobenthic diatoms after growth in different types of culture conditions 393–402

Christian Boedeker and Ulf Karsten. The occurrence of mycosporine-like amino acids in the gametophytic and sporophytic stages of *Bangia* (Bangiales, Rhodophyta) 403–408

Zenilda L. Bouzon, Luciane C. Ouriques and Eurico C. Oliveira. Ultrastructure of tetraspore germination in the agar-producing seaweed *Gelidium floridanum* (Gelidiales, Rhodophyta) 409–415

Karin Lindberg, Ojvind Moestrup and Niels Daugberg. Studies on woloszynskioid dinoflagellates I: *Woloszynskia coronata* re-examined using light and electron microscopy and partial LSU rDNA sequences, with description of *Tovellia* gen. nov. and *Jadwigia* gen. nov. (Tovelliaceae fam. nov.). 416–440

Morgan L. Vis, Wayne B. Chiasson and Robert G. Sheath. Phylogenetic relationship of *Batrachospermum* species (Batrachospermales, Rhodophyta) from coastal streams in French Guiana 441–446

Wang Shen, Jian-Fan Wen, Gui-Ling Sun and Yuan Lu. Identification of triosephosphate isomerase (TIM) genes from *Microcystis* (Cyanobacteria: Chroococcales) and theoretical analyses of the potential of cyanobacterial TIM as a target for designing specific inhibitors 447–452

Kevin J. Peters, Charles D. Amsler, Margaret O. Amsler, James B. McClintock, Robert B. Dunbar and Bill J. Baker. A comparative analysis of the nutritional and elemental composition of macroalgae from the western Antarctic Peninsula 453–643

International Phycological Society Application for Membership 464

VOLUME 44, NUMBER 5, SEPTEMBER 2005

Nicolas Orologas, Stylianos G. Delivopoulos, Areti Dimopoulou and Ioannes Tsekos. Effects of 2,6-dichlorobenzonitrile on plasma membrane cellulose synthesizing complexes and cellulose localization in cells of the red alga *Erythrocladia subintegra* 465–476

Marc Verlaque, Pamela M. Brannock, Teruhisa Komatsu, Martine Villalard-Bohnsack and Marcia Marston. The genus *Grateloupia* C. Agardh (Halymeniaceae, Rhodophyta) in the Thau Lagoon (France, Mediterranean): a case study of marine plurispecific introductions 477–496

Michael J. Wynne, Donatella Serio, Mario Cormaci and Giovanni Furnari. The species of *Chondrophycus* and *Laurencia* (Rhodomelaceae, Ceramiales) occurring in Dhofar, the Sultanate of Oman 497–509

Alba Vergés, Celia Izquierdo and Marc Verlaque. *Rhodymeniocolax mediterraneus* sp. nov. (Rhodymeniales, Rhodophyta), parasitic on *Rhodymenia ardissonei* from the western Mediterranean Sea. 510–516

Yuki Sawai, Tamotsu Nagumo and Kensuke Toyoda. Three extant species of *Paralia* (Bacillariophyceae) along the coast of Japan 517–529

Sang-Rae Lee, In Kyu Lee and Youngbae Suh. Molecular evidence for recognizing *Antithamnion sparsum* (Ceramiales, Rhodophyta) at the species level 530–535

Alan J.K. Millar and Willem F. Prud'homme van Reine. Marine benthic macroalgae collected by Vieillard from New Caledonia and described as new species by Kützing 536–549

Chui Pin Leaw, Po Teen Lim, Boon Koon Ng, Mei Yee Cheah, Asmat Ahmad and Gires Usup. Phylogenetic analysis of *Alexandrium* species and *Pyrodinium bahamense* (Dinophyceae) based on theca morphology and nuclear ribosomal gene sequence 550–565

Melvin Goldstein, Jack McLachlan and Janice Moore. Morphology and reproduction of *Synura lapponica* (Synurophyceae) 566–571

Peter S. Vroom. *Dasya atropurpurea* sp. nov. (Ceramiales, Rhodophyta), a deep-water species from the Hawaiian Archipelago 572–580

VOLUME 44, NUMBER 6, NOVEMBER 2005

New Editor-in-Chief Appointed 581

Hilary A. McManus and Louise A. Lewis. Molecular phylogenetics, morphological variation and colony-form evolution in the family Hydrodictyaceae (Sphaeropleales, Chlorophyta). 582–595

Shoichiro Suda, Hisayoshi Nozaki and Makoto M. Watanabe. Morphology and sexual reproduction of *Carteria palmata* sp. nov. belonging to the *Carteria* group I *sensu* Lembi (Chlorophyceae, Volvocales) . . . 596–607

Grethe Rytter Hasle and Nina Lundholm. *Pseudo-nitzschia seriata* f. *obtusa* (Bacillariophyceae) raised in rank based on morphological, phylogenetic and distributional data 608–619

Tse-Min Lee, Ya-Ling Huang and Meng-Hsien Chen. Copper induction of phosphorus deficiency in *Ulva fasciata* (Ulvales, Chlorophyta) 620–628

Isaí Pacheco-Ruíz, José Antonio Zertuche-González and Julio Espinoza-Avalos. The role of secondary attachment discs in the survival of *Chondracanthus squarrulosus* (Gigartinales, Rhodophyta) 629–631

Paris J. Goodsell and Sean D. Connell. Disturbance initiates diversity in recruitment of canopy-forming algae: interactive effects of canopy-thinning and substratum availability 632–639

Miguel F. de Salas, Christopher J.S. Bolch and Gustaaf M. Hallegraeff. *Karlodinium australe* sp. nov. (Gymnodiniales, Dinophyceae), a new potentially ichthyotoxic unarmoured dinoflagellate from lagoonal habitats of south-eastern Australia 640–650

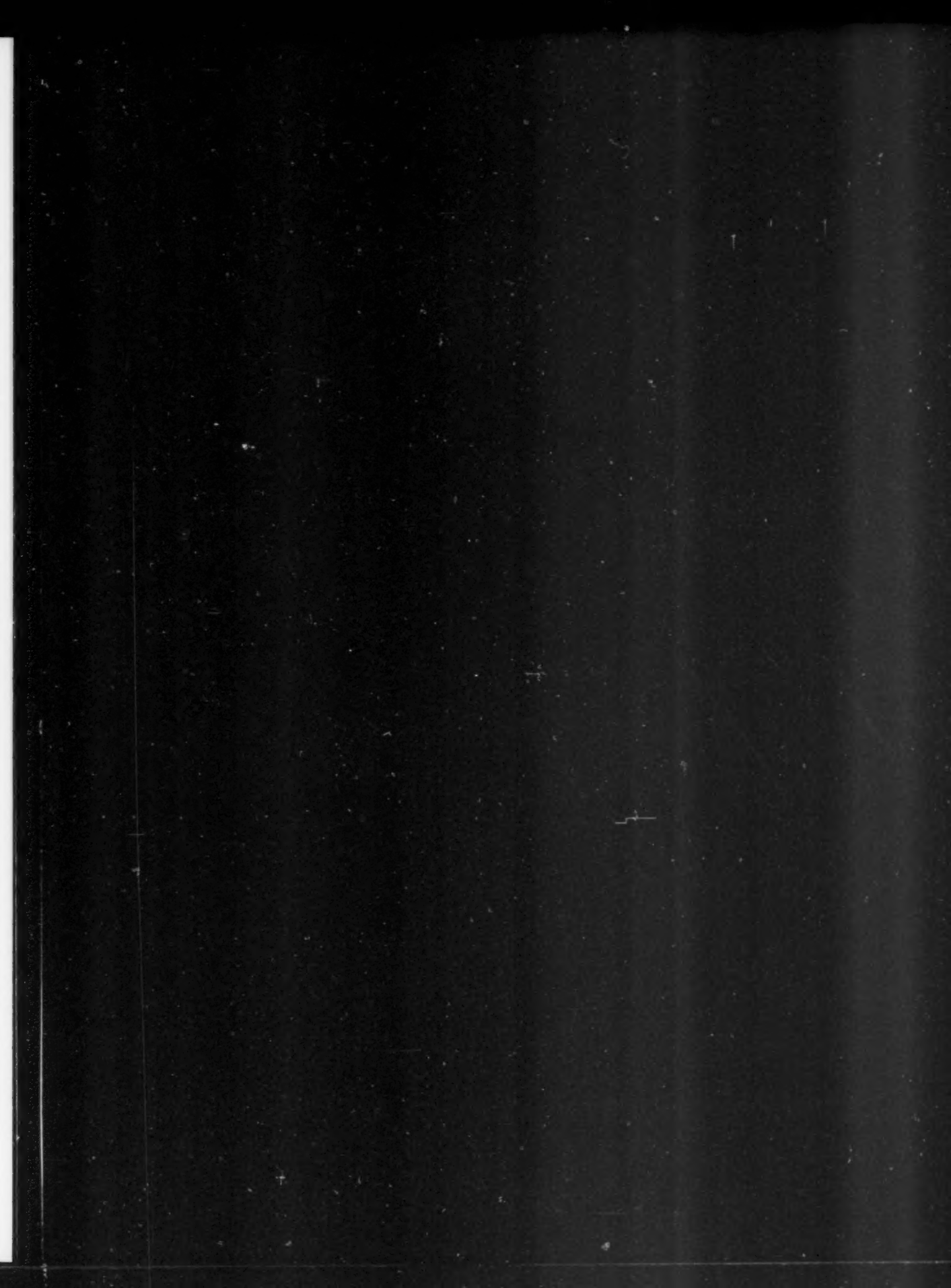
M.A. Ribera Siguan, A. Gómez Garreta, I. Pérez Ruzafa, M.C. Barceló Martí and J. Rull Lluch. A new species of *Dictyopteris* (Dictyotales, Phaeophyceae) from the Iberian Peninsula: *Dictyopteris lucida* sp. nov. 651–657

Rosa Isabel Figueroa, Isabel Bravo and Esther Garcés. Effects of nutritional factors and different parental crosses on the encystment and excystment of *Alexandrium catenella* (Dinophyceae) in culture . . . 658–670

Danilo Giroldo, Armando A. H. Vieira and Berit S. Paulsen. Microbial degradation of extracellular polysaccharides released by a tropical strain of *Staurastrum orbiculare* (Zygnematophyceae) 671–677

Elisabet Vilalta and Sergi Sabater. Structural heterogeneity in cyanobacterial mats is associated with geosmin production in rivers 678–684

List of reviewers 2004 685–686

Subject and author indexes 687

Volume contents for Volume 44 694